February 2018

Curriculum Vitae

Name: James W. Hodge, Ph.D., MBA

Publication IDs: Scopus: 7103254756; WOS: D-5518-2015

Education:

1988	B.S.	University of Tennessee, Martin, Tennessee *(Biology/Chemistry)*
1990	M.S.	University of Tennessee, Knoxville, Tennessee *(Microbiology)*
1993	Ph.D.	University of Tennessee, Knoxville, Tennessee *(Comparative and Experimental Medicine)*
2008	M.B.A.	George Washington University, Washington, DC *(Medicine/Healthcare)*

Brief Chronology of Employment:

1988-1990	Biological Database Systems Analyst, Oak Ridge National Laboratory, X-10, Toxicology Research Division (Dept. of the Navy), Oak Ridge, TN
1993-1996	IRTA Research Fellow, Experimental Oncology Section, Laboratory of Tumor Immunology and Biology, National Cancer Institute, National Institutes of Health, Bethesda, MD
1996-1998	Senior Staff Fellow, Experimental Oncology Section, Laboratory of Tumor Immunology and Biology, National Cancer Institute, National Institutes of Health, Bethesda, MD
1998-2003	Staff Scientist, Laboratory of Tumor Immunology and Biology, National Cancer Institute, National Institutes of Health, Bethesda, MD
2003-2011	Senior Scientist, Head of the Recombinant Vaccine Group, Laboratory of Tumor Immunology and Biology, Center for Cancer Research, National Cancer Institute, National Institutes of Health, Bethesda, MD
2011-2016	Investigator, Head of the Recombinant Vaccine Group, Laboratory of Tumor Immunology and Biology, Center for Cancer Research, National Cancer Institute, National Institutes of Health, Bethesda, MD
2016-Present	Senior Investigator, Head of the Recombinant Vaccine Group, Laboratory of Tumor Immunology and Biology, Center for Cancer Research, National Cancer Institute, National Institutes of Health, Bethesda, MD
2017-Present	Deputy Chief, Laboratory of Tumor Immunology and Biology, Center for Cancer Research, National Cancer Institute, National Institutes of Health, Bethesda, MD

Academic Appointments:

Professor, Department of Medical Genetics, University of Tennessee Medical Center, Knoxville, TN, 2000-2008 (adjunct).

Senior Visiting Professor of Radiation Oncology, Department of Radiation Oncology and Surgery, Albert Einstein College of Medicine, New York, NY, 2008-Present (adjunct).

Committees/NIH Faculties/Memberships:

Head & Neck Cancer Steering Committee, National Cancer Institute, National Institutes of Health, 2014-Present.

Division of Cancer Prevention Management and Administration Committee, The PREVENT Cancer Preclinical Drug Development Program, National Cancer Institute, National Institutes of Health, 2014-Present.

Information Technology Contact, Center for Cancer Research, National Cancer Institute, National Institutes of Health, 2009-Present

Vaccine Working Group, National Institutes of Health, 2000-Present.

Immunology Faculty, National Cancer Institute, National Institutes of Health, 2001-2010.

American Association for Cancer Research.

European Academy for Tumor Immunology (EATI), 2016-Present

National Institutes of Health Radiation Committee, 2017-Present.

Honors and Other Scientific Recognition:

Science Alliance Research Excellence Award, University of Tennessee, Departments of Microbiology, Medical Biology, 1992, 1993.

Federal Technology Transfer Award, Department of Health and Human Services, National Institutes of Health, National Cancer Institute, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017.

Sustained Superior Performance Award, National Cancer Institute, 2001, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017.

National Institutes of Health Award of Merit ‘For major contributions to the field of cancer immunotherapy’, National Institutes of Health, 2003.

20-Year Service, United States Federal Government, Health and Human Services, National Institutes of Health, National Cancer Institute, 2016.

Honors and Other Scientific Recognition (continued):

National Institutes of Health Award of Merit 'For accomplishments in therapeutic cancer vaccines, from vaccine design to clinical studies', National Institutes of Health, 2009.

National Institutes of Health Award of Merit for 'Development of a Prostate Cancer Vaccine Programmatic Effort', National Institutes of Health, 2012.

National Institutes of Health Award of Merit 'For the design and development of therapeutic cancer vaccines both as monotherapy and in combination therapies showing patient benefit for a range of human carcinomas' National Institutes of Health, 2012

Chairman, Immunomodulation Group, Translational Research Program, Radiation Therapy Oncology Group (**RTOG**), 2012-2013.

NCI Outstanding Mentor Award 'To acknowledge exemplary mentoring and guidance of trainees in cancer research', National Institutes of Health, 2013.

Chairman, Immunotherapy Committee, NRG Oncology Cooperative, 2013-present.

Scientific Advisory Board Member, Chordoma Foundation, 2018-present.

Grants/Protocols:

CCR FLEX Program Award (Grant). 2015-2017. $675,000. "Mechanistic Analyses of Therapeutic Response in Patient-Derived Organoids" Kelly, K., Choyke, P., Gulley, J., Dahut, W., Pinto, P., **Hodge, J.W,** and Merino, M.

Prostate Cancer Foundation (PCF) Challenge Award (Grant). 2015-2017. $1,000,000. "CARAVAN: Checkpoint-Radiation-Vaccine Neoadjuvant Trial for Metastatic Prostate Cancer". Fong, L., Dicker, A.P., **Hodge, J.W.,** Gomella, L.G., Mann, M.J., Hoffman-Cenitis, J., Chang, A.J., Kelly, K.W, Leiby, B.E., Mason, N.J., and Rodeck, U.

Technology Transfer:

Issued patents (National Only)

- *Total: n=10*

U.S. Patent #6045802. *Recombinant Vaccine Design.* "Enhanced immune response to an antigen by a composition of a recombinant virus expressing the antigen with a recombinant virus expressing an immunostimulatory molecule".
Issued 4/4/2000.

U.S. Patent #6548068. *Infectious Disease*. "Enhanced immune response to an antigen by a composition of a recombinant virus expressing the antigen with a recombinant virus expressing an immunostimulatory molecule". Issued 4/15/2003.

U.S. Patent #6893869. *Modified Whole Tumor Cell Vaccine*. "Enhanced immune response to an antigen by a composition of a recombinant virus expressing the antigen with a recombinant virus expressing an immunostimulatory molecule". Issued 5/17/2005.

U.S. Patent #6969609. "A recombinant vector expressing multiple costimulatory molecules and uses thereof". Issued 11/29/2005.

U.S. Patent #7211432. *Modified Whole Tumor Cell Vaccine* "A recombinant vector expressing multiple costimulatory molecules and uses thereof". Issued 5/01/2007.

U.S. Patent #7368116. "Method of enhancing a targeted immune response against tumors". Issued 5/6/2008.

U.S. Patent #7662395. "Method of enhancing a targeted immune response against tumors". Issued 2/16/2010.

U.S. Patent #7771715. *General Vaccine* "A recombinant vector expressing multiple costimulatory molecules and uses thereof". Issued 8/10/2010.

U.S. Patent #8901093. "Custom Vectors for Treating and Preventing Pancreatic Cancer". Issued 12/2/2014.

U.S. Patent #8933041. "System for treating and preventing breast cancer". Issued 1/13/2015.

Technology Transfer (continued):

Patent Applications (National Only)

- *Total: n=10*

U.S. Patent Application #20050063993. *Cancer Vaccine*. "Enhanced immune response to an antigen by a composition of a recombinant virus expressing the antigen with a recombinant virus expressing an immunostimulatory molecule". Status: Initial Filing 3/242005.

U.S. Patent Application #20040101522. "Transduced neoplastic cell preparations able to express T-cell costimulatory molecules B7.1, ICAM-1, and LFA-3 and induce immunostimulatory prophylactic and therapeutic anti-tumor effects in-vivo". Status: Initial Filing 5/272005.

U.S. Patent Application #20050186180. *General Vaccine*. "Enhanced immune response to an antigen by a composition of a recombinant virus expressing the antigen with a recombinant virus expressing an immunostimulatory molecule". Status: Initial Filing 8/252005.

U.S. Patent Application #20070048860. "Carcinoembryonic antigen (CEA) peptides". Status: Initial Filing 3/12007.

U.S. Patent Application #2010/031460. "Combination Immunotherapy Vaccine Compositions and Methods." Status: Initial Filing 4/2010.

U.S. Patent Application #2012/0017347. "Combination Immunotherapy Compositions Against Cancer and Methods." Status: Initial Filing 5/2012.

U.S. Patent Application #62/117,216. "Cabozantinib immunotherapy." Status: Initial Filing 2/2015.

U.S. Patent Application #62/274,946/62/278,852. "Combination of Histone Deacetylase Inhibitor and Immunotherapy." Status: Initial Filing 1/2016.

U.S. Patent Application #15/507,316. "Immunogenic modulation by endocrine deprivation therapy improves sensitivity of tumor cells to immune mediated lysis." Status: Initial Filing 2/2017.

U.S. Patent Application #62/534,161. "Combination Therapy for Chordoma". Status: Initial Filing 7/2017.

Editorial/Advisor Duties:

Study Section Reviewer, Immunology: Prostate Cancer Vaccine Section, Department of Defense, 2000.

Editorial Member of Advisory Board of Editors for the International Society for Preventive Oncology (ISPO) journal; Cancer Detection and Prevention. 2005-2009.

Managing Editor of the journal Frontiers in Bioscience. 2005-2011.

Member of Advisory Committee for planning the International Society for Preventive Oncology (ISPO) annual meeting; Paris, France, 2006.

Editorial Board Member: Cancer Epidemiology, 2009-2013.

Editorial Board Member, Tumor Microenvironment and Therapy. 2012-Present.

Guest Editor, Seminars in Oncology, Special Issue, "Cancer Vaccines", Vol. 39; 3. 2012.

Guest Editor, Radiation Research, Special Issue, "Modulation of tumor Immunity with hypofractionated and special multi-fractioned radiation therapy: basic mechanisms and clinical implications", 2014.

Ad-hoc reviewer for journals including Blood, Cancer Research, Clinical Cancer Research, Cancer Detection and Prevention, Journal of Clinical Investigation, Journal of Immunology, Current Opinions in Molecular Therapeutics, Emerging Therapeutic Targets, Expert Opinion on Biologic Therapy, Radiation Research, International Journal of Cancer, Tumor Microenvironment and Therapy, Seminars in Oncology, Expert Review of Vaccines, Journal of the National Cancer Institute, Nature Medicine, Cancer Epidemiology, Nature Reviews Cancer, Oncotarget, Oncoimmunology, Cancer Immunology Research, JAMA Oncology.

Grand Rounds/Session Chairman/Keynote at National and International Meetings:

Grand Rounds: "Perspectives in Cancer Immunotherapy: Vaccine Challenges and Solutions," University of Tennessee Medical Research Hospital and Thompson Cancer Survival Center, Knoxville, TN, 1998.

Session Chairman: "Advances in Immunotherapy," Annual Meeting of the American Association for Cancer Research, San Francisco, CA, 2002.

Symposium Chairman: "Cancer Immunotherapy and Prevention," International Society for Cancer Detection and Prevention, Pasteur Institute, Paris, France, 2002.

Symposium Chairman: "Vaccine Trials," International Society for Cancer Detection and Prevention, Nice, France, 2004.

Grand Rounds: "Combining Standard of Care Radiation Therapy with Active Vaccination Against Tumors," Radiation Oncology Grand Rounds, Albert Einstein College of Medicine and Montefiore Medical Center, New York, 2009.

Symposium Chairman: "Modern Vaccine Development," 5th Annual Biological Therapeutics Conference, San Francisco, CA, 2010.

Keynote: "Combining Approved Therapies with Active Vaccination Against Tumors," Moving Targets. 9th Annual Multidisciplinary Scientific Symposium, University of Southern California, Los Angeles, CA, 2010.

Session Chairman: "Radiation and Immune Response Modifiers," 14th International Congress of Radiation Research, Warsaw, Poland, 2011.

Special Session Chairman: "Immunotherapy, The Future Combination" European Multidisciplinary Cancer Congress: Integrating Basic & Translational Science, Surgery, Radiotherapy, Medical Oncology and Care. Stockholm, Sweden, 2011.

Session Chairman: "Cancer Immunotherapy", 3rd Cancer Targets and Therapeutics Conference, Las Vegas, NV, 2012.

Keynote: "In the Field: Exploiting the Untapped Potential of Combining Radiation and Immunotherapy for the Treatment of Cancer: Immunomodulation Group Kick-Off. Immunomodulation Group, Translational Research Program, Radiation Therapy Oncology Group (RTOG), Philadelphia, PA, 2012.

Grand Rounds/Session Chairman/Keynote at National and International Meetings (continued):

Keynote: "Perspective: Radiation Induced Immunogenic Cell Death versus Immunogenic Modulation; an Exploitable Continuum", Immunomodulation Group, Translational Research Program, NRG Oncology; Combined National Surgical Adjuvant Breast and Bowel Project (NSABP), Radiation Therapy Oncology Group (RTOG), and Gynecologic Oncology Group (GOG), San Diego, CA, 2013.

Session Chairman: "Progress in Cancer Immunotherapy," 2nd Novel Cancer Therapeutics Summit, 4th Cancer Targets and Therapeutics, Las Vegas, NV, 2013.

Session Chairman: "Immunology Primer for the Radiation Oncologist", Modulation of tumor immunity with hypofractionated and special multi-fraction radiation therapy: Basic mechanisms and clinical implications, National Institutes of Health, Bethesda, MD, 2013.

Keynote: "Perspective: Defining Clinical Endpoints for Immunotherapy Trials", Immunomodulation Group, Translational Research Program, Radiation Therapy Oncology Group (RTOG)/ NRG Oncology, Philadelphia, PA, 2013.

Grand Rounds: "Unlocking Combination Therapies for Cancer: Exploiting Immunogenic Modulation of Tumor Cells to Enhance Immunotherapy", Radiation Oncology, Helen Diller Family Comprehensive Cancer Center, UCSF, San Francisco, CA, 2014.

Session Chairman: Real-Time Experience with Radiation and Chemotherapy Combinations with Immunotherapies. Immunotherapy Committee, NRG Oncology, San Diego, CA, 2014.

Grand Rounds: "Tapping the Potential of Immunogenic Modulation to Attack Malignant Cells that Survive Therapy", Division of Radiation Oncology, The University of Texas MD Anderson Cancer Center, Houston, TX, 2014.

Session Chairman: De-risking combination strategies-adopting a more mechanistic and rational approach to targeted + systemic immunotherapy combinations, 7th annual Phacilitate Immunotherapy Bioleaders Forum, Washington DC, 2015.

Session Chairman: Trial Design Focus: Biomarkers to Predict Patient Responses to Immunotherapy. Immunotherapy Committee, NRG Oncology, San Diego, CA, 2015.

Major Symposium Speaker: "Enhancing Efficacy of Cancer Immunotherapy by Use of Ablative Therapy". AACR Annual Meeting, Philadelphia, PA, 2015.

Keynote: "Perspective from the NCI: The Importance of Immunotherapy Trials", Community Oncology Conference, Orlando, FL, 2015.

Grand Rounds/Session Chairman/Keynote at National and International Meetings (continued):

Session Chairman: Trial Design Focus: Trial Design Focus: T-cell Clonality to Predict Patient Responses to Immunotherapy'. Immunotherapy Committee, NRG Oncology, Denver, CO, 2015.

Session Chairman: Untangling Cancer Moonshots. Immunotherapy Committee, NRG Oncology, Dallas, TX, 2016.

Keynote: "Integrating Chemoradiotherapy into Head and Neck Immunotherapy", 2nd New Horizons in Immunotherapy for Head and Neck Cancer, San Diego, CA, 2016.

Invited Seminars and Lectures: ***National***

"CEA-State of the Art," XXIV International Society for Oncodevelopmental Biology and Medicine Congress, San Diego, CA, USA. 1996.

"Recombinant Vaccine Strategies for Cancer Immunotherapy," Multidisciplinary Approaches to Cancer Immunotherapy, Bethesda, MD, USA. 1997.

"Costimulation and Tumor Immunotherapy," Immunology Interest Group, NIH Seminar Series, Bethesda, MD, USA. 1998.

"Combination Vaccine and Radiation Therapy for Established Tumors," Immunology Faculty, Center for Cancer Research, NCI, NIH, DHHS, Bethesda, MD, 2003.

"Live Vaccines for the Therapy of Colorectal Carcinoma: Preclinical and Clinical Studies," Emerging Cancer Therapeutics, Cambridge, MA, 2003.

"Opportunities and Challenges in Cancer Vaccine Development: Integration of Cancer Vaccines with Conventional Anti-Cancer Therapies," Phacilitate Vaccine Forum, Boston, MA, 2003.

"Multimodal Strategies for Cancer Therapy," Medical College of Wisconsin, Milwaukee, WI, 2004.

"Combining Cancer Vaccine Strategies with Standard-of-Care Therapies," Immunology Faculty, Center for Cancer Research, NCI, NIH, DHHS, Bethesda, MD, 2006.

"Challenges in Cancer Vaccine Development: Prime/Boost Vaccines (Pre-clinical and Clinical Studies)," Walter Reed Army Institute of Research (WRAIR), 2007.

Invited Seminars and Lectures: ***National (continued)***

"Bench to Bedside: Vaccine Strategies and Combined Modalities for the Therapy of Cancer," Bringing Therapeutic Cancer Vaccines and Immunotherapies Through Development to Licensure. FDA/NCI Sponsored Workshop. Bethesda, MD, 2007.

"The Use of Cancer Vaccines in Combination Therapies," Applying Systems Biology Collaboration Conference; Beyond Genome 2008, San Francisco, CA, 2008.

"Towers of Babel: Translating Business and Science to Treat the First Patient," Sunrise Session, Applying Systems Biology Collaboration Conference; Beyond Genome 2008, San Francisco, CA, 2008.

"Engineering of Poxvirus Vectors and Vaccines," Department of Biology, Georgia State University, Atlanta, GA, 2008.

"Career Development for Science and Biotechnology," Georgia State University, Atlanta, GA, 2008.

"Cancer Vaccines: Moving Beyond Current Paradigms for Clinical Trial Design and Combination Therapies," 6th Annual Cancer Drugs Research and Development Conference, Philadelphia, PA, 2009.

"Lost in Translation; Removing Barriers to Moving Vaccine Strategies and Combination Therapy to the Clinic," Life Science Summit, Next Generation Therapeutic Modalities, Hauppauge, NY, 2009.

"Antigen Cascade in Combination Therapies: Cancer Vaccine Strategies with Standard-of-Care," 5th Modern Drug Discovery and Development Summit: Modern Vaccine Development, San Diego, CA, 2009.

"A Brave New World: Vaccines for Therapy of Cancer," West Virginia State University Faculty Lecture Series, American Chemical Society Speaker Series and College of Natural Sciences and Mathematics Fall Convocation, Charleston, WV, 2010.

"Cancer Vaccines Work, What Next? Combination Vaccine Therapy as the Next Frontier," 5th Annual Biological Therapeutics Conference, San Francisco, CA, 2010.

"Recombinant Poxviral Vaccines for Cancer Therapy," University of Tennessee Student Members of American Chemical Society (SMACS) and Sigma Xi Lecture, Martin, TN, 2010.

"Exploiting the Immune Effects of Targeted Small-Molecule Inhibitors with Vaccine for Tumor Therapy," 3rd Cancer Targets and Therapeutics Conference, Las Vegas, NV, 2012.

Invited Seminars and Lectures: ***National (continued)***

"The Emerging Synergy Between Radiotherapy and Immunotherapy: Basic Immunology and Prospectives for the Clinic", Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA, 2012.

"Managing a Research Laboratory", Meet the Expert Breakfast, Society for Immunotherapy of Cancer, Bethesda, MD, 2012.

"Vaccines for Prostate Cancer, From Bench to Phase III Clinical Trials", Baylor Institute for Immunology Research, Dallas, TX, 2013.

"Therapy-induced immunogenic modulation of tumor cells enhances killing by cytotoxic T lymphocytes and is distinct from immunogenic cell death", "Progress in Cancer Immunotherapy," 2nd Novel Cancer Therapeutics Summit, 4th Cancer Targets and Therapeutics, Las Vegas, NV, 2013.

"Calreticulin as a mediator of immunogenic modulation and CTL sensitivity," NCI Center of Excellence in Immunology Seminar Series, Bethesda, MD, 2013.

"The Shifting Tide of Radiation Combination Therapy with Immune Modulators", Modulation of tumor immunity with hypofractionated and special multi-fraction radiation therapy: Basic mechanisms and clinical implications, National Institutes of Health, Bethesda, MD, 2013.

"Radiation and Immunotherapy Combination Therapy", Robert W. Franz Cancer Research Center, Providence Cancer Center, Portland OR, 2014.

"Shifting Clinical Endpoints for Combination Immunotherapy Trials", Immunomodulation Committee, NRG Oncology, San Diego, CA, 2014.

"Role of Timing in Targeted Combination Therapy", De-risking combination strategies-adopting a more mechanistic and rational approach to targeted + systemic immunotherapy combinations, 7th annual Phacilitate Immunotherapy Bioleaders Forum, Washington DC, 2015.

"Active Immunotherapy for Cancer: Vaccines: Successes from Bench to Bedside", Immunotherapy Perspective, Translational Science Workshop, NRG Oncology, San Diego, CA, 2015.

"Radiation Induced Immunogenic Modulation to Enhance T-cell and Monoclonal Antibody Therapy of Cancer". Overcoming Resistance to Clinical Immunotherapy. Antibody Engineering and Therapeutics, San Diego, CA, 2015.

Invited Seminars and Lectures: ***National (continued)***

"Rationally Combining Immunotherapy with Chemotherapy", Immunotherapy for Cancer, Status and Future Prospects, GOG Winter Symposium, NRG, Atlanta, GA, 2016.

"Enhancing Cancer Vaccine Efficacy Through Standard-of-Care Therapy-Induced Immunogenic Modulation of Tumor cells: Successes from Bench to Bedside", Rational Combinations 360˚, New York, NY, 2016

"Immunogenic Modulation of Chordoma Cells Results in Enhanced Immune Cell Killing: Foundation for Combination Therapy Clinical Trials" Fifth International Chordoma Research Workshop, Boston, MA, 2016.

"Novel Immunotherapy Trials: Exploiting the Immunogenic Modulation Potential of Chemotherapy or Alpha Radiation for the Treatment of Cancer", NRG, Dallas, TX, 2016.

"Enhancing the Combination of Radiation and Immunotherapy: Background and Recommendations (Ra-223)", Prostate Cancer Foundation, Scientific Working Group Meeting on Radium-223, New York, NY, 2016.

"Heavy Lifting: Exploiting the Unique Potential of Heavy Particle Radiation for the Treatment of Cancer", 2nd World Congress on Oncology and Radiology, Las Vegas, NV, 2016.

"Immunotherapy Approaches with Radiation: Vaccines", Bayer Life Science Workshop: Radiation Science and Radiopharmaceuticals: Opportunities in Combining Radiation Therapy and Immuno-Oncology, Baltimore, MD, 2017.

"Tapping The Potential of Immunogenic Modulation To Attack Malignant Prostate Cancer Cells That Survive Therapy", Prostate Cancer Foundation, Immunotherapy Working Group, Bethesda, MD, 2018.

Invited Seminars and Lectures: ***International***

"Active Cancer Immunotherapy-State of the Art," XXV International Society for Oncodevelopmental Biology and Medicine Congress, Montreux, Switzerland, 1997.

"Costimulatory Molecules in Vaccine Design," Vaccination Strategies Workshop, Ernst Schering Research Foundation, Berlin, Germany, 1999.

"Advances in Cancer Vaccines," International Society for Cancer Detection and Prevention, Pasteur Institute, Paris, France, 2002.

"The Use of Recombinant Vaccines for the Therapy of Colorectal Carcinoma," Recent Advances in Cancer Immunotherapy, The Catholic University of Korea, Seoul, Korea, 2003.

"Recombinant Cancer Vaccines: Design and Development," International Society for Cancer Detection and Prevention, Nice, France, 2004.

"Vaccine Therapy for Cancer, Multimodal Approaches," Royal Society of Medicine, London, UK, 2004.

"Vaccine Strategies and Combined Modalities for the Therapy of Cancer," Development of New Therapies for Cancer, World BioPharm Forum, Cambridge, UK, 2007.

"Cancer Vaccines: Unlocking the Combination of Standard-of-Care and Experimental Therapies," Viral Vector Vaccines, Wellcome Trust, Hinxton, Cambridge, UK, 2008.

"T-cells as Magic Bullets: Recombinant Vaccine Strategies for Cancer Immunotherapy," Ehrlich 2nd World Conference on Magic Bullets, Nuremberg, Germany, 2008.

"Vaccination with a Recombinant *Saccharomyces cerevisiae* Vaccine Expressing a Tumor Antigen Breaks Immune Tolerance and Elicits Therapeutic Antitumor Responses", Black Sheep Lecture, 27th ISSY; International Specialized Symposium on Yeasts, Pasteur Institute, Paris, France 2009.

"The Tipping Point for Combination Therapy: Cancer Vaccines with Radiation", 14th International Congress of Radiation Research, Warsaw, Poland, 2011.

"Fueling the Fire of Immunotherapy with Radiation" European Multidisciplinary Cancer Congress: Integrating Basic & Translational Science, Surgery, Radiotherapy, Medical Oncology and Care. Stockholm, Sweden, 2011.

"The Rational Combination of Targeted Therapy and Immunotherapy", 1st International Symposium on Immunotherapy, (*in absentia*), The Royal Society, London, 2013.

Invited Seminars and Lectures: ***International (continued)***

"Translation of Cancer Vaccine Combination Therapy to Clinical Trials", BC Cancer Agency, Trev and Joyce Deeley Research Centre Cancer Immunotherapy Series, University of Victoria, Victoria, BC, Canada, 2014.

"Understanding Therapy Combinations in Cancer Treatment", 2nd International Symposium on Immunotherapy, The Royal Society, London. May 2015.

Teaching:

Science:

Johns Hopkins Bloomberg School of Public Health, Baltimore, MD. "Pox: Ghost of the Past, Present, and Future" 2003-Present (annual).

Foundation for Advanced Education in the Sciences, NIH, Bethesda, MD. "Vaccines: Development and Evaluation of Efficacy. Poxvirus Vectors and Vaccines" Bio-Track 31. 2004-2015.

Foundation for Advanced Education in the Sciences, NIH, Bethesda, MD. "Translational Medical Product Development"" Tech 584. 2012-Present (annual).

Foundation for Advanced Education in the Sciences, NIH, Bethesda, MD. Immunology 419M. 2014-Present (annual)

Business:

Financial Market Analysis. Facilitator, George Washington School of Business. 2008-2011.

Personal Financial Management. George Washington School of Business. 2008-2011.

Mentoring:

Summary:

Dr. Hodge has served as a mentor for 19 postdoctoral fellows, 11 Howard Hughes Medical Institute/Medical Scholars Research Program Fellows, 4 medical fellows, 4 Postbaccalaureate Fellows and 32 summer interns. In addition, he has served on 3 doctoral committees. Dr. Hodge's fellows have gone on to tenure track professor positions or leadership positions in the biotechnology and/or medical industry.

- Dr. Hodge received the NCI Outstanding Mentor Award in 2013.

Mentoring (continued):

Current Fellows/Staff under Dr. Hodge's direct supervision:

2015-current Dr. Rika Fujii, M.D, Ph.D. (Visiting Fellow)
2017-current Dr. Kellsye Fabian, Ph.D. (Visiting Fellow)
2017-current: Ms. Kathleen Fenerty, MS3 (MRSP Fellow)
1997-current Mr. Marion Taylor, Biologist
2016-current Ms. Michelle Padget, Biologist

Past Postdoctoral Fellows under Dr. Hodge's direct supervision:

1996-1999 Dr. Matthias Lorenz, Ph.D.
1999-2005 Dr. Douglas Grosenbach, Ph.D.
1999-2002 Dr. Mijntje Aarts, Ph.D.
2001-2007 Dr. Mala Chakraborty, Ph.D.
2002-2005 Dr. Chie Kudo-Saito, Ph.D.
2002-2006 Dr. Elizabeth Wansley, Ph.D.
2002-2006 Dr. Charlie Garnett, Ph.D.
2007-2010 Dr. Jack Higgins, Ph.D.
2007-2010 Dr. Amanda Boehm, Ph.D.
2009-2012 Dr. Benedetto Farsaci, M.D., Ph.D.
2008-2011 Dr. Sofia Gameiro, Ph.D.
2010-2012 Dr. Rene Donahue, Ph.D.
2009-2014 Dr. Andressa Ardiani, Ph.D.
2010-2015 Dr. Anna Kwilas, Ph.D.
2013-2016 Dr. Peter Kim, Ph.D.
2014-2017 Dr. Anthony Malamas, Ph.D.

Howard Hughes Medical Institute/ Medical Research Scholars Program Fellows under Dr. Hodge's direct supervision:

1995-1996: Kerry Bernal (Uzendoski) M.D.
1996-1997: Robert Kalus, M.D.
1998-1999: Ariel Rad, M.D., Ph.D.
1999-2000: Jacqueline Barrientos, M.D.
2000-2001: Pragyna Shankar, M.D.
2004-2005: Alexander Gelbard, M.D.
2005-2006: Hadley Sharp, M.D.
2007-2008: Jorge Caballero, M.D.
2009-2010: Julia Rotow, M.D.
2012-2013: Max Wattenberg, M.D.

Mentoring (continued):
Medical Fellows and Postbaccalaureate Fellows under Dr. Hodge's direct supervision:

1997-1998	Eric Bernon, M.D.
1999-2000	Mary Ann Cachola
2006-2008	Michael Bernstein, M.D.
2010-2011	Michael Coplin, M.D.
2012-2013	Momodou Jammeh (UGSP Scholar)
2014-2015	Ashley Hall
2015-2017	Dr. Eitan Freidman, M.D.
2016-2017	Madaline Dahut

NIH Mentor Committee Memberships:

Otolaryngology Surgeon-Scientist Career Development Program, National Institute on Deafness and Other Communication Disorders, National Institutes of Health, 2014-Present.

Doctoral Committee Memberships:

Department of Medical Biology, University of Tennessee, Knoxville, TN

Department of Radiation Oncology and Surgery, Albert Einstein College of Medicine, NY

Tumor Biology, Lombardi Comprehensive Cancer Center, Georgetown University, DC

Public Service:

Quarterly Speaker, Regional Institute for Children and Adolescents (RICA), Montgomery County Public Schools, Rockville, MD, 2001-2004.

Annual Judge for Elementary Science Fair, Flower Valley Elementary School, Montgomery County Public Schools, Rockville, MD, 2004-2007.

Mentor for 'in-lab' students, Regional Institute for Children and Adolescents (RICA), Montgomery County Public Schools, Rockville, MD, 2003-2009.

Annual Career Development Seminar, Watkins Mill Elementary School, Montgomery County Public Schools, Rockville, MD, 2009-2011.

Media Interviews/Press Publications:

"Stalking a Killer." In: Tennessee Alumnus Magazine, Volume 85:1, Winter 2005.

"Cancer Vaccine Research Offers Hope." University of Tennessee Campus Scene, Volume 40: Winter/Spring 2005.

"Triple Therapy to Target Tumours." Instant Insight, Highlights in Chemical Biology, 2009

"Progress, Promise and Hurdles in Developing Cancer Immunotherapy/Therapeutic Cancer Vaccines," Scrip 100, 2009.

"Therapeutic Synergies in the Fight Against Cancer," CCR Connections, July 2010.

"Vaccines for Therapy of Cancer," WLJT Public Television for West Tennessee, Channel 11, PBS affiliate, October 2010.

"The Radiation Therapy Oncology Group Names Dr. James Hodge to Guide Immunomodulation Research", Radiation Therapy Oncology Group Newsletter, 2012.

"Perspective from the NCI: Importance of Immunotherapy Trials", OBR/OcologyTube, May, 2015. http://www.oncologytube.com/v/1034865/perspective-from-the-nci-importance-of-immunotherapy-trials

"Attacking cancer: are therapeutic vaccines on the verge of fulfilling their potential?" The Pharmaceutical Journal, Royal Society. July 23, 2015.

"Heavy Lifting: Exploiting the Potential of Heavy-Particle Radiation for Immunotherapy of Cancer", ENLIGHT: The European Network for Light Ion Hadron Therapy (CERN), 2017.

Publications:

Summary:

Dr. Hodge has published 155 articles, comprised of 103 primary research papers, 36 review articles and 16 book chapters. Dr. Hodge is the primary or senior author on 103 of the 155 articles.

- ***H-Index (Scopus): 43; 6739 total citations (February 2018)***

Peer Reviewed Articles*:*

- *Total: n=103*

1) Wust, C.J., **Hodge, J.W**., Ichiki, A.T., and Lozzio, C.B. 1991. Cell death in the human leukemia cell line, K-562, induced by antiserum and monoclonal antibodies. Leukemia Research. 15:497-507.

2) **Hodge, J.W**., Abrams, S., Schlom, J., and Kantor, J.A. 1994. Induction of antitumor immunity by recombinant vaccinia viruses expressing B7-1 or B7-2 costimulatory molecules. Cancer Research. 54:5552-5555.

3) **Hodge, J.W**., McLaughlin, J.P., Abrams, S., Shupert, W.L., Schlom, J., and Kantor, J.A. 1995. Admixture of a recombinant vaccinia virus containing the gene for the costimulatory molecule B7 and a recombinant vaccinia virus containing a tumor-associated antigen gene results in enhanced specific T-cell responses and antitumor immunity. Cancer Research. 55:3598-3603.

4) **Hodge, J.W**., Schlom, J., Donohue, S.J., Tomaszewski, J.E., Wheeler, C.W., Levine, B.S., Gritz, L., Panicali, D., and Kantor, J.A. 1995. A recombinant vaccinia virus expressing prostate-specific antigen (PSA): Safety and immunogenicity in a nonhuman primate. International Journal of Cancer. 63:231-237.

5) Akagi, J., **Hodge, J.W**., Gritz, L., Panicali, D., Kufe, D., Schlom, J., and Kantor, J.A. 1997. Therapeutic anti-tumor response after immunization with an admixture of two recombinant vaccinia viruses expressing a modified MUC1 gene and the murine T-cell costimulatory molecule B7. Journal of Immunotherapy. 20:38-47.

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Current Collaborations:

Intramural: n=5

Dr. Claudia Palena, Investigator, Head, Immunoregulation Group, Laboratory of Tumor Immunology and Biology, Center for Cancer Research, National Cancer Institute, NIH

Dr. Peter Choyke, Senior Investigator, Director, Molecular Imaging Program, Center for Cancer Research, National Cancer Institute, NIH

Dr. Kevin Camphausen, Senior Investigator, Chief, Radiation Oncology Branch, Center for Cancer Research, National Cancer Institute, NIH

Dr. Clint Allen, Principle Investigator, Head and Neck Surgery Branch, National Institute on Deafness and Other Communication Disorders, NIH

Dr. Deric Park, Clinical Investigator, Neuro-Oncology Branch, Center for Cancer Research, National Cancer Institute, NIH

Academic: n=5

Dr. Adam Dicker, Department of Radiation Oncology, Thomas Jefferson Hospital, Philadelphia, PA

Dr. Soldano Ferrone, Department of Surgery, Massachusetts General Hospital, Harvard Medical School, Massachusetts, MA

Dr. Chandan Guha, Radiation Oncology, Albert Einstein College of Medicine, NY

Dr. Sunil Krishnan, Radiation Oncology, MD Anderson, TX

Dr. Mark Hurwitz, Radiation Oncology, Thomas Jefferson University, Philadelphia, PA

Industry: n=6

Dr. Shahrooz Rabizadeh, Nantomics, Culver City, CA

Dr. Hing Wong, Altor Bioscience, Miramar, FL

Dr. Frank Jones, Etubics Corporation, Seattle, WA

Dr. Christopher Heery, Bavarian Nordic, Redwood City, CA

Dr. Scott Hammond, Medimmune, Gaithersburg, MD

Dr. Zhen Su, EMD Serono, Billerica, MA

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